



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
PATENT EXAMINING OPERATION

AF / 6P3637

IPW

In re Application of:

KURT A. KEIL

Serial No.: 09/892,359

Filed: June 28, 2001

Title: STRUCTURAL TUBING MEMBERS
WITH FLARED OUT END
SEGMENTS FOR CONJOINING

Group Art Unit No.: 3637

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Examiner: Phi Dieu Tran A

Patent & Trademark Office Commissioner
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TIMELY SUPPLEMENTAL BRIEF RESPONDING TO OIPE LETTER MAILED 07/20/04

Sirs:

This is further to the substantive Reply Brief and enclosures filed June 4, 2004, to which the OIPE has responded with a form letter “Notice of Non-Compliant Amendments”, on which formal two boxes are checked, specifically 4A “A Complete listing of all of the claims is not present,” and 4B, “The listing of claims does not include the text of all claims (including W/D claims).

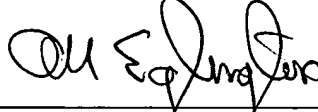
The preliminary remarks on page 1 of the June 4th brief identified claims 1 to 26 as being going forward, , but claims 21 and 24 only thereof were once amended. Claims 21 and 24 were earlier presented in a first enclosure on the marked up version, including their status; and a clean set of the same two claims with no annotations were also provided. All other claims 1 to 20, 22, 23, 25, and 26 were continued in this case. To rectify the oversight as to not reproducing all of the pending claims, whether original or amended, two substitute sets of claims are now advanced. Firstly, the earlier marked up version regarding only claims 21 and 24 only is recopied for

comparison purposes and also provided is a complete set of all 26 claims in the case (clean amended claims set) but now with each claim annotated by a parenthetical expression, reflecting the current status of this examined application and each claim.

It is respectfully submitted that the present explanation, the recopied set of marked up claims 21 and 24 only, and the complete set of clean claims (all status identified) meet all requirements of the recent OIPE letter. This case is thought to be in condition to be sent forward to the Patent Examiner, Phi Dieu Tran A

Enclosures:
Marked up claims 21 and 24
Clean set of all clean claims
Copy of OIPE letter

Very truly yours,

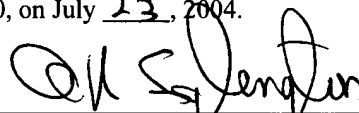


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CERTIFICATE OF MAILING

The undersigned hereby certifies that this correspondence is being deposited with the United States Postal service as First Class Certified Mail in an envelope addressed to: Patent & Trademark Office, ATTN: OIPE – LIE Margaret Byers , P.O. Box 1450, Alexandria, VA, 22313-1450, on July 23, 2004.

Date: July 23 2004



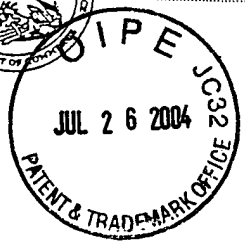
Arthur R. Eglington, Esq.

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Paper No.

Notice of Non-Compliant Amendment (37 CFR 1.121)

The amendment document filed on 6/4/04 is considered non-compliant because it has failed to meet the requirements of 37 CFR 1.121, as amended on June 30, 2003 (sec 68 Fed. Reg. 38611, Jun. 30, 2003). In order for the amendment document to be compliant, correction of the following item(s) is required. Only the corrected section of the non-compliant amendment document must be resubmitted (in its entirety), e.g., the entire "Amendments to the claims" section of applicant's amendment document must be re-submitted. 37 CFR 1.121(h).

THE FOLLOWING CHECKED (X) ITEM(S) CAUSE THE AMENDMENT DOCUMENT TO BE NON-COMPLIANT:

- ☐ 1. Amendments to the specification:
 - ☐ A. Amended paragraph(s) do not include markings.
 - ☐ B. New paragraph(s) should not be underlined.
 - ☐ C. Other _____
- ☐ 2. Abstract:
 - ☐ A. Not presented on a separate sheet. 37 CFR 1.72.
 - ☐ B. Other _____
- ☐ 3. Amendments to the drawings: _____
- ☒ 4. Amendments to the claims:
 - ☒ A. A complete listing of all of the claims is not present.
 - ☐ B. The listing of claims does not include the text of all claims (including withdrawn claims)
 - ☒ C. Each claim has not been provided with the proper status identifier, and as such, the individual status of each claim cannot be identified.
 - ☐ D. The claims of this amendment paper have not been presented in ascending numerical order.
 - ☐ E. Other: _____

For further explanation of the amendment format required by 37 CFR 1.121, see MPEP Sec. 714 and the USPTO website at <http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/officellver.pdf>.

If the non-compliant amendment is a **PRELIMINARY AMENDMENT**, applicant is given ONE MONTH from the mail date of this letter to supply the corrected section which complies with 37 CFR 1.121. Failure to comply with 37 CFR 1.121 will result in non-entry of the preliminary amendment and examination on the merits will commence without consideration of the proposed changes in the preliminary amendment(s). This notice is not an action under 35 U.S.C. 132, and this ONE MONTH time limit is not extendable.

If the non-compliant amendment is a reply to a **NON-FINAL OFFICE ACTION** (including a submission for an RCE), and since the amendment appears to be a *bona fide* attempt to be a reply (37 CFR 1.135(c)), applicant is given a TIME PERIOD of ONE MONTH from the mailing of this notice within which to re-submit the corrected section which complies with 37 CFR 1.121 in order to avoid abandonment. **EXTENSIONS OF THIS TIME PERIOD ARE AVAILABLE UNDER 37 CFR 1.136(a).**

If the amendment is a reply to a **FINAL REJECTION**, this form may be an attachment to an Advisory Action. The period for response to a final rejection continues to run from the date set in the final rejection, and is not affected by the non-compliant status of the amendment.

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Legal Instruments Examiner (LIE) Telephone No.

TOO/PE



REPLY OF 4 JUNE 04 FILING

REPLY BRIEF TO OFFICE ACTION IN USSN 09/892,359 (MARKED AMENDED CLAIMS SHEET)

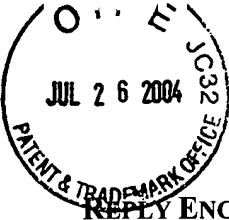
21. (Once Amended) A rigid channel member of a variable length formed from [extrudable aluminum] sheet steel stock in which the three member sidewalls are generally planar throughout their length and adapted to be custom-fitted and conjoined with at least one rigid surface of another member, the channel member being provided with linear groovings along at least one planar surface to permit controlled separation of at least one sidewall thereof along the groovings, such [tubular] channel member comprising:

- (a) a transverse configuration which is rectangular in cross-section with one open sidewall and has open longitudinal ends; and
- (b) a first pair of externally-placed, linear groovings arrayed in parallel with each of the grooving being located proximal to one of the two seams of the center sidewall, and the grooving being of a depth sufficient to facilitate separation under force of at least an initial finger of one sidewall end segment from the adjacent sidewall end segment, while maintaining the structural integrity of the transverse dimension of the separated sidewall end segment at the end point of separation.

24. (Once Amended) A rigid, angle-shaped member of a variable length formed from [extrudable aluminum] sheet steel stock, in which the two member sidewalls are generally planar throughout their length and are adapted to be conjoined with at least one rigid surface of another member, comprising:

- (a) a transverse configuration which is right angular in cross section, and has open longitudinal ends; and,
- (b) a pair of externally-placed, linear groovings arrayed in parallel, with each of the

groovings being located proximal to the one seam of the member and straddling said one seam of the member, and with each of the groovings being of a depth sufficient to facilitate separation under force of an initial finger of one sidewall end segment from the other sidewall end segment, while maintaining the structural integrity of the transverse dimension of the separated sidewall end segment at the end point of separation.



REPLY ENCLOSURE TO PTO ACTION IN USSN 09/892,359 (COMPLETE CLAIM SET

WITH STATUS INDICATIONS AND ALL IN CLEAN TEXT PER § 1.121)

CLAIMS

1. (original) A rigid tubular member of a variable length formed from sheet steel stock in which the member sidewalls are generally planar throughout their length and adapted to be custom-fitted and conjoined with at least one rigid surface of another member, the tubular member being provided with linear groovings along at least one planar surface to permit controlled separation of at least one sidewall thereof along the groovings, such tubular member comprising:

(a) a transverse configuration which is rectangular in cross-section and has open longitudinal ends; and

(b) a first pair of externally-placed, linear groovings arrayed in parallel with each of the groovings being located proximal to each of the two seams of a single member sidewall in one planar surface of the member, and each of the groovings being of a depth sufficient to facilitate separation under force of at least an initial finger of one sidewall end segment from the adjacent two sidewall end segments, while maintaining the structural integrity of the transverse dimension of the separated sidewall end segment at the end point of separation.

2. (original) The tubular member of Claim 1 wherein a second pair of externally-placed, linear groovings, arrayed in parallel, are located in an opposing planar surface of the member, with each of the groovings being located proximal to one of the elongate set in the opposing planar surface, and each of the second pair of groovings being of a depth sufficient to facilitate separation under force of at least an initial second finger from a second sidewall end segment from the adjoining two sidewall end segments, while maintaining the structural integrity of the

transverse dimension of the separated sidewall end segment at the end point of separation.

3. (original) The tubular member of Claim 2 wherein a third pair of externally-placed, linear groovings, arrayed in parallel, are located in at least one of the third and fourth planar surfaces of the member, having the same juxtaposition as did each of the first and second pairs, and being of substantially the same depths as the first and second pairs of groovings to facilitate separation under force of at least an initial third finger from a third sidewall end segment from the adjacent two sidewall end segments.

4. (original) A rigid tubular member of a variable length formed from sheet steel stock, in which the member sidewalls are generally planar throughout their length and adapted to be custom-fitted and conjoined with at least one planar surface of another member, the tubular member being provided with linear groovings along at least one planar surface to permit controlled separation of at least one sidewall thereof along the groovings, such tubular member comprising:

(a) a transverse configuration which is rectangular in cross-section and has open longitudinal ends; and

(b) a first pair of externally-placed linear groovings, arrayed in parallel, with each such grooving located coincident with the two external linear seams of the tubing located on the elongate edges of one planar surface thereof, and with each of such groovings being of a depth sufficient to facilitate separation under force of at least an initial first finger from a first sidewall end segment from the adjacent sidewall end segments.

5. (original) The tubular member of Claim 4 wherein a second pair of externally-placed, linear groovings, arrayed in parallel, are located in an opposing planar surface of the member, with each of the groovings being located coincident with the external linear seams of the tubing

and on the opposing elongate edges of one planar surface thereof, and with each of the second pair being of a depth sufficient to facilitate separation under force of at least an initial second finger from a second sidewall end segment from the adjoining two sidewall end segments, while maintaining the structural integrity of the transverse dimension of the separated sidewall end segment at the end point of separation.

6. (original) A rigid tubular member of a variable length formed from sheet steel stock in which the member sidewalls are generally planar throughout their length adapted to be custom-fitted and conjoined with at least one rigid surface of another rigid member, the tubular member being provided with linear groovings along at least one planar surface to permit controlled separation of at least one sidewall thereof along the groovings, such tubular member comprising:

(a) a transverse configuration which is rectangular in cross-section and has open longitudinal ends; and

(b) a first pair of internally-placed, linear groovings, arrayed in parallel, with each of the groovings being located coincident with the two internal linear seams of one planar surface of a tubing sidewalls, thereof, with each of the groovings being of a depth sufficient to facilitate separation under force of at least an initial first finger from one sidewall end segment from the adjacent two sidewall end segments, while maintaining the structural integrity of the transverse dimension of the separated sidewall end at the points of separation.

7. (original) The tubular member of Claim 6 wherein a second pair of internally placed, linear groovings, arrayed in parallel, are located in the opposing planar surface of the member, with each of the groovings being located coincident with the two elongate seams in the opposing planar surface, and each of the second pair being of a sufficient depth sufficient to facilitate separation under force of at least an initial second finger from one sidewall end segment from the

adjacent two sidewall end segments, while maintaining the structural integrity of the transverse dimension of the separated sidewall end at the points of separation.

8. (original) A rigid tubular member of a variable length formed from sheet steel stock in which the member sidewalls are generally planar throughout their length adapted to be custom-fitted and conjoined with at least one rigid surface of another member, the tubular member being provided with linear groovings along at least one planar surface to permit controlled separation of at least one sidewall along the groovings, adapted to be fitted to other surfaces, such tubular member comprising:

(a) a transverse configuration which is rectangular in cross-section and has open longitudinal ends;

(b) a first pair of externally-placed, linear groovings, arrayed in parallel, with each of the groovings being located proximal to each of the two seams of a single member sidewall in one planar surface of the member; and,

(c) a first pair of internally-placed, linear groovings, arrayed in parallel, with each of the groovings being located coincident with the internal linear seams of a first planar surface tubing sidewalls, of the first planar surface thereof, with the combination of the internal and external groovings being of a depth sufficient to facilitate separation under force of at least an initial first finger from one sidewall end segment from the adjacent two sidewall end segments, while maintaining the structural integrity of the transverse dimension of the separated sidewall end at the points of separation.

9. (original) The tubular member of Claim 8 wherein:

(a) a second pair of externally-placed, linear groovings, arrayed in parallel, are located in the opposing planar surface of the member, with each of the groovings being located

proximal to one of the elongate seams in an opposing planar surface; and,

(b) a second pair of internally placed, linear groovings, arrayed in parallel, are located in the opposing planar surface of the member, and disposed on the opposing elongate edge of the opposing planar surface, with each of the groovings being located coincident with one of the elongate seams in the opposing planar surface, and with the combination of the internal and external groovings being of a sufficient depth sufficient to facilitate separation under force of at least an initial first finger from one sidewall end segment from the adjacent two sidewall end segments, while maintaining the structural integrity of the transverse dimension of the separated sidewall end at the points of separation.

10. (original) The tubular member of Claim 1 having a rectangular cross-section, wherein the internal span of the one opposing pair of sidewalls have depending end segments which are adapted to tightly engage the external span of a complementary pair of sidewalls on a second tubular member of identical cross dimensions.

11. (original) A pair of conjoined tubular members of variable length and like rectangular cross-sections, formed from sheet steel stock, each having a narrower internal dimensional span and a comparatively wider external dimensional span wherein:

(a) the internal span of one opposing pair of sidewalls of a first member which is left intact, while at least one of the complementary end sidewalls of a second member and as to the one end sidewall it includes a first pair of externally-placed, linear groovings arrayed in parallel with each of the groovings being located proximal to one of the elongate opposing seams in one planar surface of the member, and each of the groovings being of a depth sufficient to facilitate separation under force of at least an initial finger from one sidewall end segment from the adjacent two sidewall end segments, while maintaining the structural integrity

of the transverse dimension of the separated sidewall end segment at the end point of separation which has been flared outwardly and fixedly and so that:

(b) the internal dimensional span of the first pair of sidewalls of the second member snugly straddles the narrower external dimensional span of the other intact first member for purposes of member conjoining at a point along the longitudinal dimensions of the first tubular member.

12. (original) The conjoined tubular pair of Claim 11 wherein the straddling second member is mounted upon the other first member at a substantially right angle.

13. (original) The conjoined tubular pair of Claim 11 wherein the straddling second member is mounted upon the other first member at an acute angle.

14. (original) The conjoined tubular pair of Claim 11 wherein each of two or more flared fingers of the divergent sidewall end segments are provided with a substantially central perforation, which perforations are adapted to align themselves with a complementary set of perforations provided in the sidewalls of the other conjoined member, so as to permit the passage therethrough of two or more interconnecting and fastener members.

15. (original) A pair of conjoined tubular members of variable length and rectangular cross-section both formed from sheet steel stock having a narrower external dimensional span and a comparatively wider internal dimensional span, wherein the external dimensional span of the opposing pair of sidewalls of the first member is left intact, while at least one of the end sidewalls of the second member includes:

(a) a first pair of externally-placed, linear groovings arrayed in parallel with each of the groovings being located proximal to each of the two seams of a single member sidewall in one planar surface of the member, and each of the groovings being of a depth sufficient to

facilitate separation under force of at least an initial finger from one sidewall end segment from the adjacent two sidewall end segments, while maintaining the structural integrity of the transverse dimension of the separated sidewall end segment at the end point of separation and which has been flared outwardly and fixedly, so that:

(b) the internal dimensional span of the second member tightly straddles the unflared end sidewalls of the external narrower dimension of the first member at its one longitudinal end, providing at least three sidewall end segments of the second member contacting the first member.

16. (original) A pair of conjoined tubular members each of variable length and rectangular cross-section, formed from sheet steel stock, each having a narrower external dimensional span and, on the opposing sides, a comparatively wider, internal dimensional span of the remaining two sides, wherein:

(a) first pair of externally-placed, linear groovings arrayed in parallel with each of the groovings being located proximal to one of the elongate opposing seams in one planar surface of the second member, and each of the groovings being of a depth sufficient to facilitate separation under force of at least an initial finger from one sidewall end segment from the adjacent two sidewall end segments, while maintaining the structural integrity of the transverse dimension of the separated sidewall end segment at the end point of separation.

(b) a second pair of externally-placed, linear groovings, arrayed in parallel, are located in an opposing planar surface of the second member, with each of the groovings being located proximal to one of the elongate seams in the opposing planar surface, and each of the second pair of groovings being of a depth sufficient to facilitate separation under force of at least an initial second finger from a second sidewall end segment from the adjoining two sidewall end segments, while maintaining the structural integrity of the transverse dimension of the separated sidewall

end segment at the end point of separation.

(c) one opposing pair of sidewall end segments of the second member are flared angularly relative to the intact first member sidewall and seat upon an external planar surface of the first member sidewall;

(d) while at least one of the other end segments of the second member has been flared outwardly and fixedly so that:

(e) the opposing pair of sidewall end segments of the second member are stepped out and straddles the external dimensional span of the first intact tubular member.

17. (original) The pair of tubular members of Claim 16 wherein the first member sidewall end segments and the intact second member sidewalls are each provided with a substantially central perforation, which perforations are adapted to align themselves with a complementary set of perforations in the underlying intact second member, so as to permit the passage therethrough of two or more interconnecting and fastening members.

18. (original) A tubular member and a right angle member conjoined and each being of variable length and rectangular cross-section, formed from sheet steel stock, wherein at least one of the sidewall end segments of the angle member is flared angularly relative to one intact tubular member sidewall and seats upon the external planar surface of the intact tubular member sidewall, wherein as to the angle member a first pair of externally placed, linear groovings are located proximal to a single seam with each of the groovings being of a depth sufficient to facilitate separation under force of an initial finger from one of the sidewall end segments.

19. (original) The rigid tubular member of Claim 1 wherein the material of construction is a thermoplastic resin extruded to a formed member and retaining its structural integrity under bearing load.

20. (original) A pair of conjoined tubular members each of variable length and rectangular cross-section both formed from sheet steel stock, wherein:

(a) a first pair of externally-placed, linear groovings arrayed in parallel with each of the groovings being located proximal to each of the two seams of a single member sidewall in one planar surface of the second member, and each of the groovings being of a depth sufficient to facilitate separation under force of at least an initial finger from one sidewall end segment from the adjacent two sidewall end segments, while maintaining the structural integrity of the transverse dimension of the separated sidewall end segment at the end point of separation.

(b) a second pair of externally-placed, linear groovings, arrayed in parallel, are located in an opposing planar surface of the second member, with each of the groovings being located proximal to one of the elongate seams in the opposing planar surface, and each of the second pair of groovings being of a depth sufficient to facilitate separation under force of at least an initial second finger from a second sidewall end segment from the adjoining two sidewall end segments, while maintaining the structural integrity of the transverse dimension of the separated sidewall end segment at the end point of separation;

(c) one opposing pair of the sidewall end segments of the second member are flared angularly relative to the intact first member sidewall and seat upon an external planar surface of the first member sidewall;

(d) while at least one of the other end segments of the second member has been stepped out flared outwardly and fixedly, so that:

(e) the opposing pair of sidewall end members of the second member are adapted to straddle the external dimensional span of the first intact tubular member.

21. (currently amended) A rigid channel member of a variable length formed from sheet

steel stock in which the three member sidewalls are generally planar throughout their length and adapted to be custom-fitted and conjoined with at least one rigid surface of another member, the channel member being provided with linear groovings along at least one planar surface to permit controlled separation of at least one sidewall thereof along the groovings, such channel member comprising:

- (a) a transverse configuration which is rectangular in cross-section with one open sidewall and has open longitudinal ends; and
- (b) a first pair of externally-placed, linear groovings arrayed in parallel with each of the grooving being located proximal to one of the two seams of the center sidewall, and the grooving being of a depth sufficient to facilitate separation under force of at least an initial finger of one sidewall end segment from the adjacent sidewall end segment, while maintaining the structural integrity of the transverse dimension of the separated sidewall end segment at the end point of separation.

22. (original) The channel member of Claim 21 wherein an externally-placed, linear groovings, is located in at least one of the sidewalls adjacent to the center sidewall being located proximal to the seam of the sidewalls, and each of the groovings being of a depth sufficient to facilitate separation under force of at least an initial second finger of one sidewall end segment from the adjacent center sidewall, while maintaining the structural integrity of the transverse dimension of the separated sidewall end segment at the end point of separation.

23. (original) A rigid tubular member of a variable length formed from sheet steel stock, in which the member sidewalls are generally planar throughout their length and adapted to be custom-fitted and conjoined with at least one rigid surface of another member, the tubular member being provided with linear groovings along at least one planar surface to permit

controlled separation of at least one sidewall thereof along the groovings, such tubular member comprising:

- (a) a transverse configuration which is rectangular in cross-section and has open longitudinal ends; and
- (b) a first pair of externally-placed, linear groovings, with each grooving being located coincident with the two seams of a contiguous member sidewall, and each of the groovings being of a depth sufficient to facilitate separation under force of at least an initial first finger of one sidewall end segment from the adjacent two sidewall end segments, while maintaining the structural integrity of the transverse dimension of the separated sidewall end segment at the end point of separation, and
- (c) a second pair of externally-placed, linear groovings, which are coincident with the two seams of the member opposing sidewall, and each of the groovings being of a depth sufficient to facilitate separation under force of at least a second finger from the adjacent sidewall end segments while maintaining the structural integrity of the transverse dimension of the separated sidewall end segment at the end point of separation.

24. (currently amended) A rigid, angle-shaped member of a variable length formed from sheet steel stock, in which the two member sidewalls are generally planar throughout their length and are adapted to be conjoined with at least one rigid surface of another member, comprising:

- (a) a transverse configuration which is right angular in cross section, and has open longitudinal ends; and,
- (b) a pair of externally-placed, linear groovings arrayed in parallel, with each of the groovings being located proximal to the one seam of the member and straddling said one seam of

the member, and with each of the groovings being of a depth sufficient to facilitate separation under force of an initial finger of one sidewall end segment from the other sidewall end segment, while maintaining the structural integrity of the transverse dimension of the separated sidewall end segment at the end point of separation.

25.(original) A rigid, angle-shaped member of a variable length formed from sheet steel stock, in which two member sidewalls are generally planar throughout their length and are adapted to be conjoined with at least one rigid surface of another member, the angle member being provided with a linear grooving along the seam of the planar surfaces to control separation of one sidewall thereof along the grooving, comprising:

(a) a transverse configuration which is right angular in cross section, and has open longitudinal ends; and,

(b) a linear grooving with the grooving being located coincident with the one seam of the member, and with the grooving being of a depth sufficient to facilitate separation under force of an initial finger of one sidewall end segment from the other sidewall end segment, while maintaining the structural integrity of the transverse dimension of the separated sidewall end segment at the end point of separation.

26.(original) A rigid channel member of a variable length formed from sheet steel stock in which the three member sidewalls are generally planar throughout their length and adapted to be conjoined with at least one rigid surface of another member, the channel member being provided with linear groovings along at least one planar surface to permit controlled separation of at least one sidewall thereof along the groovings, such tubular member comprising:

(a) a transverse configuration which is rectangular in cross-section and has open longitudinal ends; and

(b) a first pair of externally-placed, linear groovings arrayed in parallel with each of the groovings being located coincident with the two seams of the center sidewall, and each of the groovings being of a depth sufficient to facilitate separation under force of at least an initial finger from one sidewall end segment from the adjacent sidewall end segments, while maintaining the structural integrity of the transverse dimension of the separated sidewall end segment at the end point of separation.